Index of Claims

| App | licatio | n/Contr | ol No. |
|-----|---------|---------|--------|
|     |         |         |        |

09/876,896 Examiner

Shuwang Liu

Applicant(s)/Patent under Reexamination

PAULRAJ ET AL.

Art Unit

2634

| √ | Rejected |
|---|----------|
| = | Allowed  |

| _ | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| + | Restricted                     |

| Z | Non-Elected  |
|---|--------------|
| _ | Interference |

| A | Appeal   |
|---|----------|
| 0 | Objected |

| Cla      | aim      |              |  |          | (        | Date   | е  |  |                 |   | Cla      | aim        |                 |          |        | Date            |          |               |                              |                    | Cla      | im         |               |          |           | D        | ate      | )        |          |           |          |
|----------|----------|--------------|--|----------|----------|--|--|--|-----------------|---|----------|------------|-----------------|----------|--------|-----------------|----------|---------------|------------------------------|--------------------|----------|------------|---------------|----------|-----------|----------|----------|----------|----------|-----------|----------|
|          | 3        |              |  |          |          |  |  |  |                 |   |          | )<br>N     |                 |          |        |                 |          |               |                              | Г                  |          | _          |               |          |           | ı        |          |          |          |           |          |
| Final    | Original |              |  |          |          |  |  |  | 1               |   | Final    | Original   |                 |          |        | $  \  $         |          |               |                              | ١.                 | ᄪ        | Original   |               |          |           | -        |          |          |          | ŀ         |          |
| ij       | Ę.       |              |  |          |          |  |  |  |                 |   | 這        | کِز<br>ابز |                 |          | 1      | $  \  $         |          |               |                              | į                  | Ξ        | 漢          | 1             |          |           | - 1      |          |          |          |           |          |
|          |          | <u> </u>     | _  |          |          |  |  |  |                 |   |          |            |                 | $\perp$  |        |                 | $\perp$  | $\perp \perp$ | _ !!!                        | L                  | _        |            |               | _        |           |          |          | _        | _        | _         |          |
|          | 1        | V            |  |          |          | _  |  |  | $\Box$          |   |          | 51         |                 |          |        | $\sqcup$        | Щ.       | 11            | _                            | L                  |          | 101        |               |          |           | _        |          |          | 4        | _         |          |
|          | 2        | П            | _  |          |          |  | _  |  |                 |   |          | 52         |                 |          | 4_     | $\sqcup$        |          | +             | _                            | L                  |          | 102        |               | 4        | 4         | 4        | 4        | _        | 4        | 4         | _        |
|          | 3        | Н            | <u> </u>   |          | <u> </u> | _  |  | Ш  | $\sqcup$        |   |          | 53         | <u> </u>        | _        | +      | ⊢               |          | -             | - :::                        | _                  | -+       | 103        |               | _        | 4         | $\dashv$ | _        | _        | 4        | $\dashv$  | 4        |
|          | 4        | Щ            | L.   |          | <u> </u> | _  |  |  | $\square$       |   |          | 54         | $\vdash$        |          |        | $\vdash$        |          |               | _ ;;;                        | <u> </u>           |          | 104        |               | _        | _         | _        | _        | -        | -        | $\dashv$  | 4        |
|          | 5        | ₩            | <u> </u>   | _        | _        |  |  | $\vdash$   |                 |   |          | 55         | $\vdash$        | +        | +      | ₩               | _        | +             | -                            | $\vdash$           | $\dashv$ | 105        | $\rightarrow$ | -        | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$  | $\dashv$ |
|          | <u>6</u> | ₩            | <del> </del>                                     |          |          |  |  | -  | Н               |   |          | 56         |                 |          |        |                 |          |               | - :::                        | $\vdash$           |          | 106        | _             | +        | -         | -+       |          | -        | -+       | $\dashv$  | _        |
| <u> </u> |          | 1            | -  |          | -        | -  |  | $\blacksquare$                                   | $\vdash$        |   | <u></u>  | 57         | $\vdash$        |          | +      | ╀               |          | +             |                              | -                  |          | 107        | _             | -+       | $\dashv$  |          |          |          | -        | $\dashv$  | -        |
| ļ        | 8<br>9   | V            | -  |          | H        | 1  |  | Н  | Н               |   | <u> </u> | 58<br>59   | $\vdash$        | +        | +      | $\vdash$        | _        | ++            | -                            | $\vdash$           | $\dashv$ | 108<br>109 | -             | -        | $\dashv$  | $\dashv$ | -        | $\dashv$ | +        | $\dashv$  | 一        |
| <b></b>  | 10       | O            | $\vdash$   |          | $\vdash$ | ┢  |  | Н  | $\vdash$        | _ | <u> </u> | 60         | $\vdash$        | +        | +      | ┥               | +        | +             | -                            | $\vdash$           | $\dashv$ | 110        |               | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$  | $\dashv$ |
| $\vdash$ | 11       | 13           | $\vdash$   | <u> </u> | $\vdash$ | $\vdash$   |  | $\vdash$   | $\vdash \vdash$ |   | $\vdash$ | 61         | $\vdash$        | +        | +      | $\vdash$        | +        | ++            | - :::                        | $\vdash$           |          | 111        |               | $\dashv$ | -         | $\dashv$ |          | -        |          | $\dashv$  | $\dashv$ |
|          | 12       | <i>U</i> =   | $\vdash$   | -        | $\vdash$ | $\vdash$   | -  | H  | $\vdash$        |   | <u> </u> | 62         | $\vdash$        | +        | +      | $\vdash$        | +        | ++            | - :::                        | $\vdash$           | +        | 112        | $\vdash$      | $\dashv$ | $\dashv$  | -        |          |          | $\dashv$ | $\dashv$  | ᅴ        |
|          | 13       | =            | $\vdash$   | <u> </u> | $\vdash$ |  |  | Н  | $\vdash \vdash$ |   | <u> </u> | 63         | $\vdash$        | +        | +      | +-+             | +        | +-+           | $\dashv$                     | -                  | $\dashv$ | 113        | -             | $\dashv$ | +         | -        | $\dashv$ | $\dashv$ | -+       | $\dashv$  | ᅱ        |
|          | 14       | 2            | <del>                                     </del> |          | -        | -  | <del> </del>                                     | $\vdash$   | $\vdash \vdash$ | _ | <u> </u> | 64         | $\vdash$        | +-       | +      | $\vdash$        | -        | ++            |                              | -                  |          | 114        | $\dashv$      | $\dashv$ | -         | $\dashv$ | $\dashv$ |          |          | -         | $\dashv$ |
|          | 15       | _            | $\vdash$   | H        | $\vdash$ | <del>                                     </del> | $\vdash$   | Н  | $\vdash$        |   |          | 65         | $\vdash$        | 十        | +      | +               | -        | +++           |                              | $\vdash$           | $\dashv$ | 115        | -             |          | 十         | $\dashv$ | -        | ╗        | $\dashv$ | $\dashv$  | ᅱ        |
|          | 16       | $\vdash$     | $\vdash$   | -        |          |  | Н  | Н  | Н               |   |          | 66         | $\vdash$        | +        | +      | $\Box$          | $\dashv$ | 1             | -                            | $\vdash$           | $\dashv$ | 116        |               | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$ | _        | $\dashv$ | $\dashv$  | $\dashv$ |
|          | 17       |              |  |          |          |  |  | П  | H               |   |          | 67         | H               | +        | $\top$ | $\Box$          | $\dashv$ | 1 +           | 1                            |                    | $\dashv$ | 117        |               | 一        | $\dashv$  | 1        | $\dashv$ |          | $\dashv$ | $\dashv$  | ᅱ        |
|          | 18       |              |  |          |          |  |  | H  | H               |   |          | 68         | H               | $\top$   | +      | $\Box$          | $\dashv$ | 1             | -                            |                    |          | 118        |               | $\dashv$ | $\dashv$  | +        | -        |          | 十        | 十         | ᅱ        |
|          | 19       |              |  |          |          | ┪  |  | Н  |                 |   |          | 69         |                 | _        | 1      | $\Box$          | _        | 1             | -                            |                    | 十        | 119        |               | _        | $\dashv$  | 7        | _        |          | $\dashv$ | 寸         | ᅥ        |
|          | 20       |              |  |          | _        | <u> </u>   |  | П  | Н               |   |          | 70         |                 | 1        |        |                 | 1        |               |                              | $\vdash$           | $\dashv$ | 120        |               |          |           | 寸        | _        |          | $\dashv$ | 寸         | ᆿ        |
|          | 21       | $\vdash$     |  |          |          |  |  | П  | H               |   |          | 71         | П               | 十        | $\top$ | $\Box$          | $\dashv$ | T             |                              |                    | 十        | 121        | T             | T        |           | 寸        | ヿ        | T        | 寸        | ヿ         | ヿ        |
|          | 22       | Г            |  |          |          |  |  |  | П               |   |          | 72         |                 | $\top$   | 1      | П               |          |               | 7                            |                    |          | 122        |               |          | T         | 寸        |          | $\neg$   |          | $\neg$    |          |
|          | 23       |              |  |          |          |  |  |  |                 |   |          | 73         |                 | $\neg$   | 1      | П               |          |               | 7                            |                    |          | 123        |               |          | $\neg$    |          | 寸        |          | 寸        | ヿ         | ヿ        |
|          | 24       |              |  |          |          |  |  |  | П               |   |          | 74         |                 |          |        |                 |          | $\top$        | 7:::                         |                    | 寸        | 124        |               | 寸        | $\exists$ | ヿ        | 一        | ヿ        | 寸        | ヿ         | ヿ        |
|          | 25       |              |  |          |          |  |  |  | П               |   |          | 75         |                 |          |        |                 |          |               |                              |                    |          | 125        |               |          |           |          |          |          |          | 丁         | $\neg$   |
|          | 26       |              |  |          |          |  |  |  |                 |   |          | 76         |                 |          | T      |                 |          |               |                              |                    |          | 126        |               |          |           |          |          |          |          | $\exists$ | $\neg$   |
|          | 27       |              |  |          |          |  |  |  |                 |   |          | 77         |                 |          |        |                 |          |               |                              | Е                  |          | 127        |               |          |           |          |          |          |          | $\Box$    |          |
|          | 28       |              | _  |          |          | L_   |  |  |                 |   |          | 78         |                 |          |        |                 |          |               | _                            | L                  |          | 128        |               |          |           |          |          |          |          |           |          |
|          | 29       | _            | L  |          |          |  |  | Ш  | Ш               |   |          | 79         |                 | $\perp$  | 1_     |                 |          |               | _                            | L                  |          | 129        |               |          |           | $\perp$  | [        |          |          |           |          |
|          | 30       | _            | _  |          |          |  |  | Ш  |                 | _ |          | 80         |                 | _ _      | ↓_     | Ш               |          | 1             | _ !!!                        | L                  | _        | 130        |               | _        |           | _        |          | _        |          | _         |          |
|          | 31       | <u> </u>     | <u></u>  |          |          |  | _  | Ш  | Ц               |   |          | 81         | $\perp$         | _ _      |        | Ш               |          | 1             | _                            | $oxedsymbol{oxed}$ | $\perp$  | 131        | _             | _        |           | _        |          | _        | $\dashv$ | $\dashv$  |          |
| L        | 32       | ļ            | <u> </u>   |          |          | _  | <u> </u>   | Ш  | -               |   |          | 82         |                 |          | 1_     | $\sqcup$        | 1        | $\perp$       | _ :::                        | L                  | _        | 132        | _             | _        | _         | _        | _        | _        | _        | $\dashv$  |          |
|          | 33       | -            | $\vdash$   |          | $\vdash$ | _  | $\vdash$   | $\vdash$   | $\dashv$        | _ | L        | 83         |                 | +        | -      | $\sqcup$        | +        | 1-1           |                              | $\vdash$           |          | 133        |               |          | $\dashv$  | _        | _        | _        | 4        | 4         | 4        |
| <u> </u> | 34       | <u> </u>     | $\vdash$   |          | $\vdash$ | <u> </u>   | <u> </u>   | $\vdash \vdash$                                  |                 | _ | <u> </u> | 84         | $\vdash$        | +        | +      | $\vdash \vdash$ |          | +             |                              | $\vdash$           | _        | 134        | _             | _        |           | $\dashv$ | _        |          |          |           | 4        |
|          | 35       | <del> </del> | <u> </u>   |          | $\vdash$ | ├-   |  | $\vdash$   | $\vdash$        |   | $\vdash$ | 85         | $\vdash$        | $\perp$  |        | $\vdash$        | +        | +             | -                            | $\vdash$           |          | 135        |               |          | _         | $\dashv$ |          | $\dashv$ | -+       | $\dashv$  | 4        |
| <b> </b> | 36<br>37 | -            | <u> </u>   |          | $\vdash$ | <del> </del>                                     | $\vdash$   | $\vdash \vdash$                                  | $\vdash \vdash$ | _ | <u> </u> | 86<br>87   | $\vdash$        | +        | +      |                 |          | +             |                              | <u> </u>           | +        | 136        | -             | $\dashv$ |           | -        | -        |          | $\dashv$ | $\dashv$  | 4        |
| <b></b>  | 38       | ├            | ├—   | -        | $\vdash$ | $\vdash$   | $\vdash$   | $\vdash \vdash$                                  | $\vdash$        | _ | <u> </u> | 88         | $\vdash$        | -        | +      | $\vdash$        |          | ++            |                              | $\vdash$           |          | 137        | $\dashv$      | $\dashv$ | $\dashv$  |          | -        |          | $\dashv$ | +         | $\dashv$ |
|          | 39       | $\vdash$     | -  | -        | $\vdash$ | $\vdash$   | $\vdash$   | $\vdash$   |                 | - |          | 89         | $\vdash$        | +        | +      | $\vdash$        | +        | ++            |                              | $\vdash$           | +        | 138<br>139 | $\dashv$      | $\dashv$ |           | -        | $\dashv$ |          | $\dashv$ | $\dashv$  |          |
|          | 40       | $\vdash$     | $\vdash$   |          | -        | $\vdash$   | $\vdash$   | $\vdash$   | $\dashv$        |   | -        | 90         | $\vdash \vdash$ | +        | +      | $\vdash$        | +        | ╁╌┼           |                              | $\vdash$           | +        | 140        | $\dashv$      | $\dashv$ | -+        | -+       |          |          | +        | -+        | 닉        |
|          | 41       |              |  |          | $\vdash$ |  | $\vdash$   | $\vdash$   | $\dashv$        |   |          | 91         | -               | +        | +      | $\vdash$        | +        | ╫             | -                            | $\vdash$           |          | 141        | $\dashv$      | $\dashv$ |           | +        |          | $\dashv$ | +        | $\dashv$  | $\dashv$ |
|          | 42       | -            | $\vdash$   |          |          | -  | <del>                                     </del> | <del>                                     </del> | $\dashv$        |   |          | 92         | $\dashv$        | $\dashv$ | +      | $\vdash$        | +        | + +           | -                            | -                  | +        | 142        | $\dashv$      | $\dashv$ | $\dashv$  | +        | -+       |          | $\dashv$ | -+        | ᅱ        |
|          | 43       | $\vdash$     | _  | -        |          | $\vdash$   |  | $\vdash$   | -               |   |          | 93         | $\dashv$        | +        | +-     | $\vdash$        | +        | +             | -                            | $\vdash$           | -+       | 143        | $\dashv$      | $\dashv$ | $\dashv$  | +        | $\dashv$ | $\dashv$ | +        | $\dashv$  | $\dashv$ |
|          | 44       | <del> </del> | _  | _        | H        | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$        |   |          | 94         | $\dashv$        | +        | +      | $\vdash$        | +        | +             |                              | H                  |          | 144        | $\dashv$      | $\dashv$ | $\dashv$  | ┪        | $\dashv$ | -        | +        | $\dashv$  | $\dashv$ |
|          | 45       |              |  |          | Н        |  |  | $\vdash$   | $\vdash$        | _ |          | 95         | $\vdash$        | ┿        | +      | $\vdash$        | +        | +             | $\dashv \parallel \parallel$ | -                  | +        | 145        | $\dashv$      | $\dashv$ | $\dashv$  | $\dashv$ | -        | $\dashv$ | $\dashv$ | $\dashv$  | ᅱ        |
|          | 46       |              |  |          | Н        | $\Box$   | m  | $\vdash$   |                 | 7 |          | 96         | $\vdash$        | +        | +      |                 | $\dashv$ | ++            | 7111                         | $\vdash$           | $\dashv$ | 146        | +             | $\dashv$ | $\dashv$  | +        | $\dashv$ | $\dashv$ | $\dashv$ | +         | ᅱ        |
|          | 47       |              |  |          |          | Г  |  |  |                 |   |          | 97         | $\dashv$        | $\top$   | T      | $\vdash$        | $\top$   | 11            | <b>-</b>                     | $\vdash$           | +        | 147        | $\dashv$      | $\dashv$ | _         | $\dashv$ | $\dashv$ | ┪        | $\dashv$ | $\dashv$  | ᅱ        |
|          | 48       |              |  |          |          |  |  | П  |                 | T |          | 98         | $\top$          | +        | †      | $\vdash$        | $\top$   | +             |                              | Г                  | _        | 148        | 1             | $\dashv$ | 十         | $\dashv$ | +        | $\dashv$ | $\dashv$ | $\dashv$  | $\dashv$ |
|          | 49       |              |  |          |          |  |  | П  | $\neg$          |   |          | 99         | $\vdash$        | _        | 1      | $\Box$          | $\top$   | TT            | 7                            | Г                  |          | 149        | $\dashv$      | $\dashv$ | 7         | $\dashv$ | 1        | — †      | $\dashv$ | $\dashv$  | ㅓ        |
|          | 50       |              |  |          |          |  |  |  |                 |   |          | 100        |                 | 7        | 1      | $\sqcap$        |          | $\top$        | 7                            | Г                  | $\neg$   | 150        | $\neg$        | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$ | _        | 寸        | $\dashv$  | ㅓ        |
|          |          |              |  |          |          |  |  | ш  | _               |   | <br>——   |            |                 |          | Щ.     | щ.              |          |               |                              | _                  |          | .00 [      |               |          |           | _        |          |          | ᆚ        | Щ.        | _        |